

SMALL CHANGES CAN MAKE

A BIG DIFFERENCE

**THE SECRET TO MEETING YOUR CONSTRUCTION
PROJECT DEADLINES**

THE CHALLENGES FACED BY THE HOUSEBUILDING SECTOR

Government continues to be under pressure to build more houses throughout the UK, with a target of building

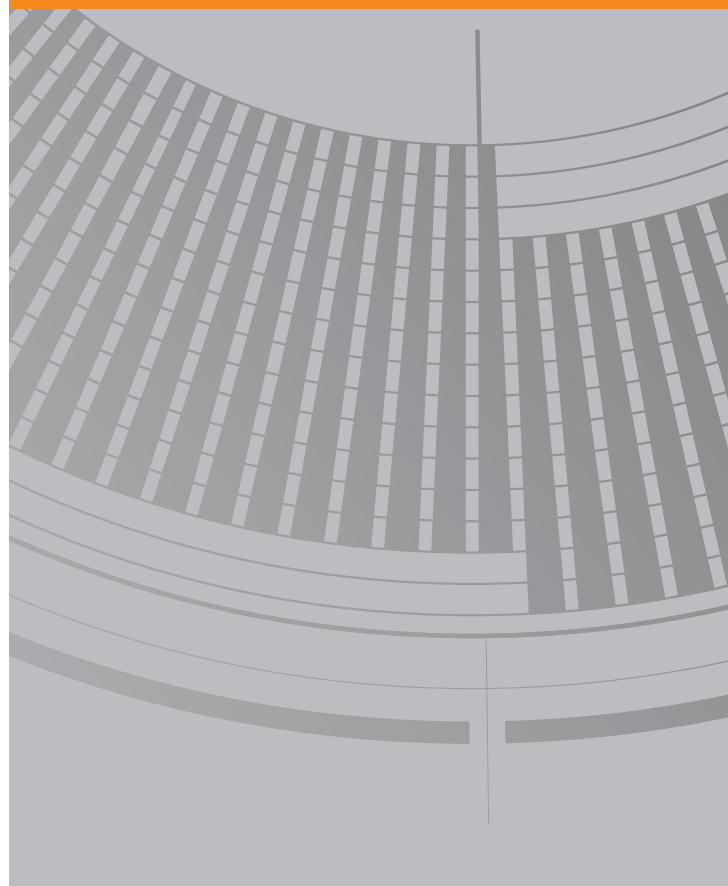
300 000
houses a year by 2020.

Meanwhile, the current shortfall of suitable, available housing remains very much in the public spotlight and uncertainty about the impact of Brexit remains a major concern for many housebuilders.

NEW RESEARCH INTO HOUSEBUILDING SECTOR

Against this backdrop, we wanted to know more about the specific challenges faced by the industry as a whole, as well as by site managers, procurement teams, architects and designers. We also wanted to identify what can be done within the industry to help ease any strain and whether the package of support we've put together to help our customers, is meeting industry challenges in an effective way.

Unsurprisingly, the findings of our detailed research reveal a number of different issues. But with productivity being one of the main problems, our research also revealed that the secret to improving this on site is all about making small adjustments that are easy to implement but very effective.





DESIGN SERVICES

THE BASIS OF DAKEA RESEARCH

During the course of 3 months (2018), we commissioned comprehensive research into the housebuilding industry (including the role of roof windows within this). Dakea research included interviewing 79 respondents (made up of architects, designers, buyers and site managers from small, independent firms to large national players representative of UK housebuilders). In particular we investigated the pain points of the three key areas: design, procurement and site management.

We also carried out a review of the research done by other professional organisations within the industry**, so that we had both a “big picture” view, as well as a better understanding of how that plays out in the day to day workings of a housebuilding site and project.

OPTIMAL LOGISTICS

DAKEA RESEARCH AND REVIEW OF THE BIGGER PICTURE

Lack of available land continues to be an issue and planning permission and regulations also continue to have the ability to strangle housing development progress (although well designed and future proofed developments seem to encounter fewer delays and objections - according to research by the Aldersgate Group last year¹).

A shortage of skilled labour is a concern for many housebuilders and research by Lloyds Bank² has revealed that Brexit has already made the recruitment of professionals

(architects, site managers, quantity surveyors) and skilled labourers (joiners, plumbers, electricians) significantly more difficult, resulting in a risk of labour force shortages. This problem could accentuate a pre-existing “aging workforce” issue within the industry. The government is now also under pressure to meet its promise to deliver “competitive and affordable energy” to meet its legal requirements which in turn will have an effect on the industry. But one of the greatest challenges the industry faces continues to be productivity.



ENERGY EFFICIENCY IS ALSO AN INCREASINGLY IMPORTANT FACTOR

According to the Aldersgate Briefing in 2017¹, the average UK home still only has an EPC energy rating of D which means energy leaks and higher bills for occupiers. UK homes are not seen as “climate change” ready and the effects of hot or cold weather on the vulnerable and elderly comes at a massive cost to the NHS.

With the UK’s building stock responsible for 19% of the UK’s total greenhouse gas emissions and commercial buildings responsible for 3%, responsibility will, to a large extent, fall to housebuilders to help the government meet its legal emissions obligations.

The above insights won’t come as a great surprise to housebuilders and they certainly reflect our experience and what our customers have been telling us for some time. Innovation, time efficiency and stellar project management will clearly be key moving forward.

GREENHOUSE GAS EMISSIONS



PRODUCTIVITY ISSUES

Factors that are restricting productivity include “lack of early, well defined briefs and a propensity for clients to change their requirements late in the process” as well as design and procurement issues, amongst other things. The slow take up of new technology and production processes are also an issue (Farmer Review 2016³).

THERE ARE 8 FACTORS THAT NEED TO BE ADDRESSED IN ORDER TO IMPROVE SPEED OF DELIVERY:

- PLANNING
 - LABOUR AVAILABILITY
 - ACCESS TO FINANCE
 - ABSORPTION RATES
 - LOCAL INFRASTRUCTURE
 - ACCESS TO MATERIALS
 - SITE LOGISTICS
 - LAND REMEDIATION
- (KNIGHT FRANK 2018⁴).

Lead times are also longer than in most other industries, leaving housebuilders vulnerable to economic and political change (Lloyds Report²).

Research has also revealed that the ability to deliver accurately to plan, remains a challenge with the Farmer Review³ reporting that the industry has become reactive to day to day project issues rather than proactive.

Dakea research confirmed that those small day to day delays and issues can have a significant knock on effect on the overall success of the project.

MEETING PRODUCTIVITY AND ENERGY CHALLENGES HEAD ON

It’s with this knowledge that we developed a support package that meets a number of these issues head on. It’s a “before, during and after” support package, designed to save time, avoid wasted costs and help increase productivity. It embraces technology, design support, skilled installation and robust project planning and management.

But we still wanted to know whether our 360 Support package can and does help housebuilders with the day to day challenges of site life.

HOW DO INDUSTRY CHALLENGES IMPACT ON SITE?

**SO, ONCE WE HAD AN OVERVIEW
OF THE INDUSTRY AS A WHOLE,
WE TOOK A CLOSER LOOK
AT CHALLENGES ON SITE.**

SUMMARY OF FINDINGS

BY WAY OF OVERVIEW
OUR MAIN FINDINGS
INCLUDED:



Completing a project on time remains one of the biggest challenges



It's not normally just one issue that derails a project. Instead small problems tend to have a significant knock on and cumulative effect



For designers and architects resolving specific design requirements can take up to 19 hours a month



Procurement issues can take anywhere between 8 and 21 hours a month to resolve



Site management issues can cost a site manager up to 40 working days a year



Support from suppliers is the key to meeting many of the challenges housebuilders face



Support provided by most suppliers is not meeting housebuilder needs and satisfaction is low



Sales support isn't (but needs to become) a priority when choosing a roof window supplier in order to overcome many of the challenges faced and save significant amounts of time

UNDER THE MICROSCOPE

IN THE COURSE OF OUR RESEARCH THERE WERE THREE SPECIFIC AREAS WE WANTED TO EXAMINE AND THE FOLLOWING ARE OUR FINDINGS IN RESPECT OF EACH

The specification process is considered challenging by its very nature, as designers and architects battle to satisfy regulations, building control and planning whilst meeting design demands.

Knowing the correct dimensions of products from the design through to installation stages and keeping up to date with changing building regulations continues to be problematic. Decisions made early during the planning stage often mean the scope of the products needs to be changed and some specification issues can continue to be an issue throughout the entire build.

This supports the findings by the Farmer Review₃ that what may look like a small issue, can have a big impact on overall productivity.

Quick and easy access to design support from a supplier could help to resolve many of these issues and speed-up delivery of the project.

1. SPECIFICATION AND DESIGN

33% of architects and designers experience problems with design and or specification. And resolving these issues can add up to well over 2 working days a month:



3 HOURS/MONTH
TO RESOLVE CHANGES
TO BUILDING REGULATIONS



4 HOURS/MONTH
TO RESOLVE CONTRACTOR
SUBSTITUTION REQUESTS



5 HOURS/MONTH
TO RESOLVE ACCESS
TO BIM/CAD FILES



7 HOURS/MONTH
TO RESOLVE SPECIFIC DESIGN
REQUIREMENTS

2. PROCUREMENT ISSUES – INCLUDING DELAYS, AVAILABILITY AND LEAD TIMES

67% of housebuilders experience problems with procurement. Half of the housebuilders who took part in our research have experienced problems with availability, and delivery problems occurred in over a quarter of their projects. This supports the findings of the Lloyds Report₂ about issues with lead times. The knock on effect is: 1 in 5 housebuilders spend over a day per month dealing with procurement issues and time lost can be as much as 21 hours a month!

Other issues that can affect the timing of a project include the supply of incorrect products and lack of installation skills or knowledge. Changes to design can result in the need for different windows or flashing kits and getting these on site as quickly as possible is seen as key to saving time and avoiding wasted costs.

Once again, all our research supported that of others within the industry, demonstrating how robust project and site management, taking advantage of technology and a proactive approach is the answer to tackling industry problems.



6 HOURS/MONTH
TO RESOLVE AVAILABILITY



7 HOURS/MONTH
TO RESOLVE DELIVERY TIMES
AND DELAYS



8 HOURS/MONTH
TO RESOLVE PRODUCT COSTS

In short, site managers can spend up to 40 working days a year on some of the above problems!

The biggest challenges for site managers are problems with mixing up materials between plots and the loss, damage or theft of materials on site or in transit. Some housebuilders claimed that over half of their projects are subject to risk management issues / claims. It's not hard to see how this can lead to loss of productivity. Examples of support that make life for site managers easier includes a plot-lotting service where all materials are already marked when they arrive on site, making it clear which plot they should go to.

3. SITE MANAGEMENT AND INSTALLATION KNOWLEDGE

Site managers face the biggest array of problems, with 90% saying they have issues with site management, logistics and security. At least half of those who took part in our research have experienced loss, damage or theft on site. Dealing with management issues eats into a site manager's working day as follows:



4 HOURS/MONTH
TO RESOLVE MIXING UP MATERIALS
BETWEEN PLOTS



5 HOURS/MONTH
TO RESOLVE THEFT, LOSS OF PRODUCTS,
INCORRECT INSTALLATION



6 HOURS/MONTH
TO RESOLVE DAMAGE ON SITE,
PROBLEMS WITH THE POINT OF CONTACT,
PROBLEMS WITH THE AFTER SALES



8 HOURS/MONTH
TO RESOLVE SERVICE LEVELS
OF DISTRIBUTORS

IMPROVING PRODUCTIVITY AND MARGINS

ENCOURAGINGLY, THE LLOYDS REPORT₂ CONCLUDES THAT INVESTMENT IN NEW AND MODERN TECHNIQUES IS SET TO INCREASE IN THE NEXT 5 YEARS WITH HOUSEBUILDERS MOTIVATED BY, "IMPROVING EFFICIENCY, GROWING MARGINS, EASE OF BUILD, BETTER CONSTRUCTION STANDARDS, BETTER ENERGY PERFORMANCE, ELIMINATION OF WASTE AND CUSTOMER AFFORDABILITY."

Advanced manufacturing processes and production techniques, smarter design and better site management methods are emerging and in order to thrive, the industry now needs to embrace new methods and approaches, such as:



The use of modular homes with offsite production of large components or even entire homes, including panelised systems with assembly on site and the use of pods or micro units. Modular construction meets many of the problems caused by labour shortages, the increased costs of traditional building materials such as bricks and the ability to boost supply within the next 5 years. Modular construction can result in significant savings in terms of time and costs.



Structured and robust project planning with "integrated and long-term design and construction collaboration" and disciplined risk management (Farmer Review₃) in order to deliver to plan more consistently, efficiently and successfully. Our design consultancy and CAD technology is already helping with this.



The adoption of modern technology and the use of digital design tools, such as building information modelling (BIM), 3D technology and even robots, which offer exciting opportunities for the industry.



There's increasing evidence that adopting more energy efficient methods and products is an important economic and social factor due to the link between energy efficiency and increased productivity in work places, improved health and lower energy bills, which in turn provides better value to house and property buyers. So we've made the energy efficiency of our windows a priority.

CHANGING PRIORITIES

Dakea research also revealed that there is industry demand and interest in a number of the specific support services in respect of roof windows included in our 360 Support, such as: installation manuals and assistance, site packs, easy to access design consultancy, availability of CAD / BIM resources, site monitoring and plot – lotting.

84% of housebuilders only receive 1 of the above services

from their current suppliers despite these being the very services that save time and help provide robust site management.

LOOKING TO THE FUTURE

Despite the challenges, housebuilders did increase net supply of housing to

217,000

in the year to March 2017 and growth forecasts are quietly positive. According to the Lloyds Report₂, there is evidence that the industry is embracing new and innovative approaches to overcome the challenges it faces and this in turn has created some exciting opportunities for housebuilders.

TIME FOR A NEW WAY OF SUPPORTING EVERY STAGE OF EVERY PROJECT

Dakea windows excel, with superb technical parameters, a unique noise reduction system and increased durability. The triple pane glazing has enhanced thermal performance and energy performance of $U_w 1.1 \text{ W/m}^2\text{K}$ for the whole window ($0.77 \text{ W/m}^2\text{K}$ for the pane), making meeting energy efficiency requirements easy.

Our research also revealed that Dakea stands out amongst our competitors when it comes to meeting or exceeding housebuilder expectations, particularly in terms of delivery, availability and logistics support. And that's because we've been researching housebuilder requirements for some time and working hard to make sure that we can help.

AS ROOF WINDOW SUPPLIER, WE WANT TO HELP LEAD THE WAY WHEN IT COMES TO FINDING INNOVATIVE SOLUTIONS TO IMPROVE PRODUCTIVITY AND IT WOULD APPEAR FROM OUR RESEARCH THAT OUR 360 SUPPORT PACKAGE DOES JUST THAT.



An optimised product range with specialist and additional products and accessories



CAD and BIM libraries available online or on a USB stick as well as expert design advice



Site packs, installation manuals and access to an online information portal



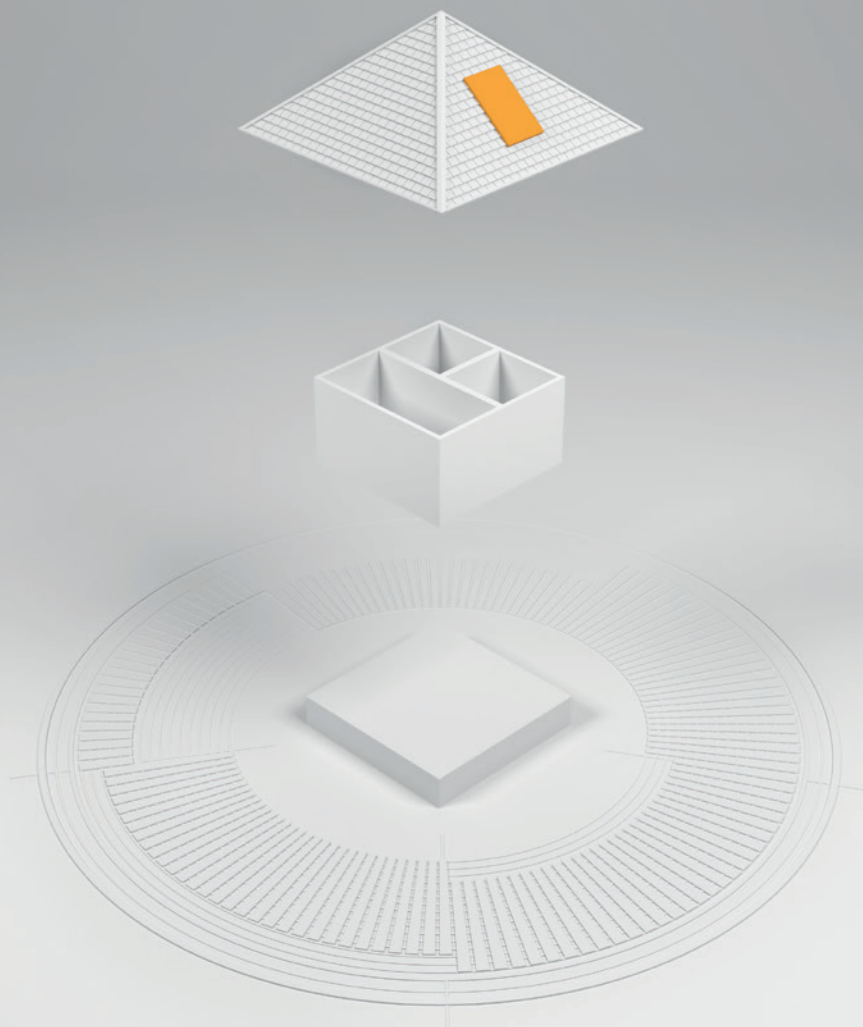
Enhanced logistics with site monitoring and plot-lotting



A dedicated team which includes site visits and a telephone hotline

**SUCCESS STARTS WITH LITTLE STEPS.
AND DAKEA HELPS BUILD SUCCESS...EVERY STEP OF THE WAY.
#DAKEA360**

**WANT TO KNOW MORE ABOUT
THE SUPPORT WE OFFER?
CONTACT US!
0800 023 9191**



Resources and research:

*Dakea research conducted by DJS Research Agency included interviewing 79 respondents (made up of architects, designers, buyers and site managers from small, independent firms to large national players representative of UK housebuilders).

****Other resources included:**

- 1 Aldersgate Group Energy Efficiency Briefing 2017
- 2 Lloyds Bank Housebuilding Report 2018
- 3 The Farmer Review of the UK construction labour model – 2016
- 4 Knight Frank Housebuilding Report 2018

